

**EVALUATION REPORT ON OILSEEDS  
DEVELOPMENT PROGRAMME - 1981**

**1. The Study**

Considering the importance of oilseeds production to India's agricultural economy, the State Governments had been implementing during the early plan period a number of schemes under the State sector to step up the production of oilseed crops. The Government of India, with the same objective, launched a centrally sponsored scheme called the Intensive Oilseeds Development Programme (ICDP) in 1969-70. The crux of both the efforts was to popularise the basic oilseed production technology by way of improved varieties of seeds, fertilizer recommendations and plant protection schedules.

At the instance of the Ministry of Agriculture, the Programme Evaluation Organisation of the Planning Commission undertook an evaluation study of the Central and State Schemes in 1976-77. Seven oilseed crops namely groundnut, rape seed-mustard, sesamum, castor, linseed, soyabean and sunflower were covered under the study. Subsequently, an effort was made to update the district level information upto 1978-79 and the Study Report was finally published in 1981.

**2. Objectives**

- i) To assess the adoption of the recommended package of practices;
- ii) To examine the factors responsible for different levels of adoption of the above practices;
- iii) To assess the variability of yields in relation to the level of adoption of improved practices;
- iv) To assess the availability of various inputs;
- v) To assess the role of extension agencies and availability of grading and marketing facilities;

- vi) To analyse the relative importance of the various factors responsible for changes in the area under the selected oilseeds;
- vii) To examine the procedure prescribed for recording the area under oilseeds and the actual system in practice; and
- viii) To assess the impact and adequacy of the programme and suggest steps for improving its effectiveness.

### 3. **Sample Size/Criteria for Selection of Sample**

The sampling design was a multi-stage stratified one, with States taking up Oil Seed Development Programme during 1974-75 as strata and districts, blocks, villages and households as primary, secondary, tertiary and ultimate units of sample. The study was conducted in 13 major oilseeds producing States which were covered by the Central/State Programmes. From each selected state, one district was selected on the basis of the joint consideration of the area sown under the covered crop and the area benefited by the Programme. However, two districts were selected for a crop from those States where the Central and State Programmes were operating. Blocks within the selected districts were stratified into two according to the proportion of area benefited from the Programme to the total area under the selected crop. One block was selected from each stratum. Three villages were selected from each chosen block through systematic sampling, after arranging them in descending order of the area sown under the selected oilseed crop. The cultivating households of a chosen village were then classified into three broad categories on the basis of the adoption of improved agricultural practices for the selected crop. 12 households were selected from each chosen village by employing circular systematic sampling method. The final sample consisted of 34 districts, 67 blocks, 201 villages and 2132 households spread over 13 States.

### 4. **Reference Period**

The tables presented in the Report referred to the period ranging from 1972-73 to 1978-79.

## 5. **Main Findings**

1. The basic constraints impeding acceleration of production of the oilseed crops in general and two major crops i.e. groundnut and rapeseed mustard in particular included the predominantly rainfed cultivation of these crops, cultivation in soils of poor fertility, high degree of susceptibility to pests/disease and adverse seasonal conditions.

2. Despite the importance attached during the Fourth Plan and Fifth Plan periods to the development of oil seeds, the then available technology was incapable of insulating oil seed production from adverse seasonal factors resulting in severe fall in production and violent price fluctuations.

3. Many research centres were engaged in evolving new varieties of seeds. Mixed response was reported regarding the facilities like farm land, irrigation, trained staff, etc. available to these centres.

4. Whereas groundnut occupied an important place in the cropping pattern in all the selected districts, rapeseed mustard emerged to be important in 8 of them. Though the cultivation of minor crops - sesamum, castor, linseed, soyabean and sunflower - was bound to certain pockets, it was observed that the oilseed production in the country could considerably be enhanced by their intensive cultivation.

5. Many of the selected districts revealed an upward trend in the area under groundnut and rapeseed mustard during 1972-73 to 1978-79. However, the proportion of area under groundnut to the total cropped area of the sample households declined marginally during 1974-75 to 1976-77 whereas the same remained more or less stationary for rapeseed mustard. The above proportion declined marginally in respect of sesamum and increased slightly for linseed and castor during 1972-73 to 1978-79. Sunflower was yet to gain ground, while, the area under soyabean increased 10-fold during the period.

6. The recommended varieties of seeds were universally adopted by the sample households in case of groundnut and by over 90% in case of rapeseed mustard. Among minor crops, the adoption was universal in respect of castor and sunflower, about 58% for sesamum and negligible for soyabean. The recommended seed rate was

adopted by well over half of the selected households in respect of groundnut and by a majority of the sample growers of rapeseed mustard. Among minor crops, such adoption was nearly cent per cent for sunflower, 15% for sesamum and 50% for soyabean.

7. Groundnut was mainly cultivated by medium and large farmers whereas rapeseed mustard was generally cultivated by medium and small farmers.

8. In respect of groundnut and rapeseed mustard, extension efforts like field demonstrations, group meetings etc. were conspicuously lacking.

9. About two-third of the sample households adopted farm yard manure/compost for groundnut. In case of rapeseed mustard, adoption was reported by about 75% of the sample households during the rabi season 1975-76. Adoption was in the range of 25% to 40% in respect of castor, sunflower and soyabean and was negligible for sesamum.

10. The adoption of chemical fertilizers as a "basal doze" was limited in respect of groundnut and rapeseed mustard. Whereas the sample growers of sesamum and castor did not apply the "basal doze" of chemical fertilizers, the situation was better in respect of soyabean and sunflower. "Top dressing" with nitrogenous fertilizers was reported by less than one-fifth of the sample growers in case of rapeseed mustard whereas it was more or less absent for the minor crops. In case of groundnut, it was not a recommended practice in most of the selected districts.

11. For groundnut, only 3% to 4% of the sample households acknowledged the adoption of preventive plant protection methods whereas 20% reported the adoption of curative methods. The level of adoption of both the measures was abysmally low for rapeseed mustard. Among minor crops, about 25% to 50% of the sample households whose fields were affected by pests/diseases reported the adoption of preventive measures in the case of sunflower, soyabean and castor. Lack of awareness and funds as well as the high cost of plant protection materials were the main culprits behind non-adoption.

12. Only one-third of the households availed credit for groundnut crop, while the corresponding proportion was around 5% for rapeseed mustard, 15% for castor and almost nil for other oil crops. It was disconcerting to learn that the co-operative credit to groundnut crop was showing a declining trend.

13. In respect of groundnut and the minor crops, there was virtually no organised marketing facility, whereas rapeseed mustard growers availed of the facility of regulated market to a limited extent in some of the selected districts. Scientific grading remained a non-starter in case of all oilseed crops.

14. Both for groundnut and rapeseed mustard, small farmers obtained substantially higher yield than big farmers. The average yield per hectare of unirrigated crop was 7.8 quintals for groundnut and 5.8 quintals for rapeseed mustard.

## 6. Major Suggestions

1. Most of the suggestions mooted for the development of different oilseeds converge to invoke the shedding of the adhoc approach for increasing their production and the framing of a long-term strategy for the same. The prime constraint in this respect has been rainfed cropping of oilseeds. Oilseeds require light irrigation through protective waterings. Concerted efforts must be made to bring larger irrigated area under the Oilseeds Development Programme.

2. Evolving high-yielding varieties of oilseeds is of utmost importance for increasing yield. Research Centres should be activated and infrastructural facilities should be strengthened to this effect.

3. Suggestions for the development of different oilseeds emphasise the need for strengthening the organisational set-up at the district level, decentralising the planning process to local levels to formulate realistic targets, boosting the local production of farm-yard manure and modernising the preparation of compost, undertaking effective extension work through demonstrations, group meetings, supply of technical literature, etc., replacing seeds periodically to maintain their purity, inducing an integrated and organised system of supplies-cum-credit-cum marketing facility and providing the facility of scientific grading.

4. It is suggested in respect of groundnut that adequate incentives through subsidies, credit and technical assistance should be given to enhance the use

of chemical fertilizers and plant protection materials. For rapeseed mustard, the case for restoring the original rate of subsidy on plant protection materials and demonstration plots is advocated. The case for subsidising chemical fertilizers is also stressed.

5. Considering the perceptibly unexplored potentials for the cultivation of minor oilseed crops, there is an urgent need to gear the implementing machinery of the Scheme to better the performance in this particular aspect.